XXII.—Further Ornithological Notes from the Neighbourhood of Cape San Antonio, Province of Buenos Ayres. Part I. PASSERES. By ERNEST GIBSON, M.B.O.U., F.Z.S.

(Text-figures 3 & 4.)

INTRODUCTION.

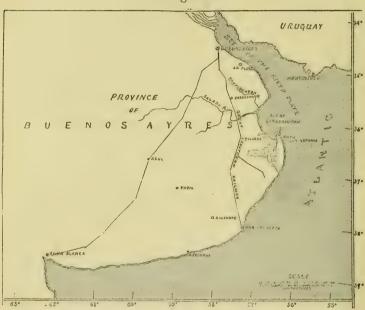
As it is nearly forty years since I wrote my first notes on this subject (Ibis, 1879, p. 405), I may be justified in recapitulating and extending the preface regarding the exact locality referred to, and the nature of the terrain. The former is important, for, as Mr. Claude H. B. Grant remarks (Ibis, 1911, p. 81) :- "It is a very interesting locality, inasmuch as it is about the southern limit of many woodland species common at Buenos Ayres and to the northward, and is about the northern limit of many Patagonian species that migrate northward in the winter months." The topographical details are, in their turn, worthy of attention, bearing in mind the unique conjunction of the Atlantic Ocean and the estuary of the River Plate (totally dissimilar in their elementary and coastal formations) : the mainland, or "Campo," of pure Pampean origin ; the indigenous or natural woods of the littoral ; and tidal creeks and salt lagunes, which again merge into and lose themselves in immense freshwater swamps and small lakes

The smaller map (text-figure 3) establishes the exact geographical position, the larger one (text-figure 4) the physical features of my "Happy Hunting-ground," though without attempting to delineate in detail the labyrinth of salt-water creeks which characterize the northern or River Plate side, or to depict the maze of swamps and marshes on the remainder of the land, principally towards the southern end.

The Gibson "Yngleses" estancia or stock-farm is now approaching its centenary. When I last wrote from it, in 1878, its large extension of 65,000 acres was unfenced, and

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very much in a state of nature, in spite of some sixty substations with 100,000 sheep, a few thousand cattle, etc. Situated just inside Cape San Antonio (latitude 36° S.), it is bounded on the north by the estuary of the River Plate. Our neighbour Leloir holds the adjoining Tuyu estancia, on which actually is the Cape itself; while his boundary, again, is the Atlantic. The shore of the latter is sand, and a line

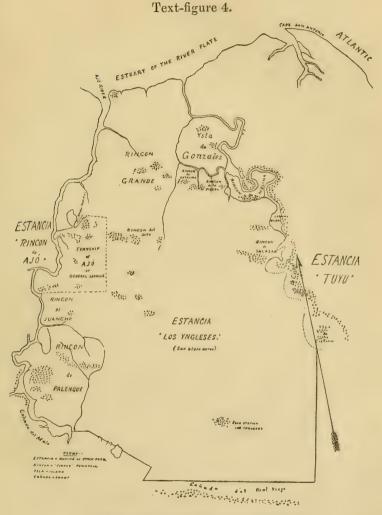


Text-figure 3.

Map of the Province of Buenos Ayres to show the situation of the estancia Los Yngleses and Cape San Antonio.

of shifting dunes (varying probably from half-a-mile to two miles in width) extends from the Cape down as far south as the Sierras of Tandil and Balcarce, where the first rocks or cliffs occur at the now fashionable watering-place of Mar del Plata (latitude 38° S.). The coast-line may be said to run north and south; but I am unable to account for the existence, inland, of numerous long sandy ridges (now covered with vegetation) parallel to each other and all trending

north-west and south-east. These would seem to indicate that the confluence of the estuary and the ocean had combined



Sketch-map of the estancia Los Yngleses.

to alter the shape of the Cape since the formation of these old coast-lines or beaches.

Immediately inside the cape, and extending all round the Bay of Sanborombon, the coast is of an entirely different character. For three or four miles inland, and encircling the whole of the bay, are found the "rincónes," a maze of islands and peninsulas, formed by tidal creeks of more or less importance, and the ramifications of which are innumerable. The soil is a clay, hard enough on the surface, but becoming soft as butter a short distance down, and is strongly impregnated with salt. The ground shakes for a considerable distance when a stake is driven in by a heavy Horses, unaccustomed to the district, betray a mallet. manifest uneasiness. And woe betide the unlucky rider who-having traversed our great freshwater swamps, his horse "withers under" and the rushes towering overhead, in perfect immunity-innocently puts his mount at the deceptive little creek, only three or four yards wide and not many inches deep; in all probability, rider, saddle, and horse become three separate factors within one wild horrifying minute, and the horse may have to be dragged out by another with a lasso! "What of the pass, Palomeque?" I asked suspiciously of our guide, as a baker's dozen of us faced a mud-flat intersected by a streamlet, in the Rincón Grande (Palomeque, be it noted, knew the rincónes as "the palm of his hand," and his horse was accustomed to them, whereas all ours were from the head-station side). "The going-in is good," he replied, and five minutes later finished the sentence with a cynical, "but I do not know about the coming-out !" Three of us-Palomeque, the submanager, and myself-had won through; the ten peones were struggling out on foot, mud-bedaubed, and dragging their plunging half-frantic horses on to terra firma. The men were of various nationalities, and their language emulated that of our Army in Flanders, past and present. The rincónes have a vegetation consisting principally of jungles of such giant-grasses as the Pampa-grass (Gynerium argenteum) and a species of Esparto three feet high. The most of the so-called terra firma and all the tidal creeks are inhabited by a small burrowing crab in countless myriads;

and the creeks are consequently called "cangrejales" (from "cangrejo," a crab). The rincónes are evidently of a very recent formation, and are perceptibly both rising and becoming firmer *.

The shore of the Sanborombon Bay is muddy, and various salt-water Carices fringe it in parts, from the cape upwards. A few rocks of that curious formation, known locally as "tosca" (the loëss of the Pampean formation of German geologists), make their first appearance also on rounding the cape and advancing into the bay. But these are rare.

As I have said, all the cangrejales merge into freshwater swamps. These must resemble the former fens of England, with the difference that a drought may dry up the largest and deepest. They are to be traversed pretty well everywhere on horseback, especially by the narrowest or bestknown passes. But to launch oneself into the heart of a "cañadon" (superlative of "cañada," a swamp) of several hundred acres in extent, and explore it for hours at a time-as I have so often done in the course of my ornithological pursuits,-requires on the part of the rider a thorough development of the bump of locality, and that his horse should be very strong and tame. It is a very serious matter, on a dark winter's night, to make a mistake returning home late from a distant sub-station ("puesto") and, missing one of the passes, get hopelessly lost; I have known of one or two cases where horse and rider failed to strike any higher ground, and ultimately succumbed to cold and exhaustion. The cañadas form the great drainagesystem of the district, and have an existent though almost imperceptible current. The deepest have only about five feet of water, and then, perhaps, another foot of mud. Their vegetation consists principally of the beautiful dark green rush known as "Junco" (Scirpus riparius Presl); the "Espadaña" or sword-bladed flag, and "Totorra" of a similar nature; and the "Durasnillo blanco" (Solanum glaucum Dunal), a deciduous-stemmed plant, with bunches

* The Bay of Bahia Blanca has its "cangrejales." As also that of San Blas, between the Rivers Colorado and Negro.

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of mauve-coloured flowers and later on clusters of dark purple berries,-all of which grow to a height of from five to seven feet above the surface of the water. There are many other aquatic plants, but I will only mention the prevalent duckweed or "Camalote" (Ceratophyllum sp., not C. australis Griseb., the only hitherto-described South American species), which lies in beds on the surface of the water, particularly in the open spaces, and when in full growth at certain seasons of the year forms a very awkward entanglement to the traveller. I remember the horse of our head cattle-man being drowned one night, the rider narrowly escaping with his life by clinging on to the tail of another, the rider of which had gallantly turned to his rescue (for the whole party of half-a-dozen was in serious difficulties at the time). Notwithstanding the almost stagnant nature of these swamps and the abundance of decaying vegetation contained in them, they are perfectly healthy and give off no injurious malaria. Doubtless this is to be accounted for by the level country being so frequently and thoroughly swept by the winds, from the Andes to the ocean; and by a considerable amount of nitre and salt inherent to the soil and vegetation-a good example of the latter being an abundantly-distributed Salicornia (Salicornia sp.), called here "Júme."

We are fortunate in having many natural woods (the exception to the "Treeless Pampas"), part of that strip which extends from Buenos Ayres to Cape San Antonio, and from there along the sea-coast (a little inland) until it culminates on a large scale in the Montes Grandes, some forty miles south. Those of the Yngleses head-station, though not large, are singularly picturesque, being situated on and about a group of dunes of a height varying up to twenty or thirty feet. The "Tala" (*Tala celtis*) predominates; but the evergreen "Coronillo" (*Scutia buxijolia* Reiss.) is abundant; and the "Quebrachillo" or "Sombra de Toro" (*Iodina rhombifolia* Hook.) is not uncommon. There is a large distribution of the "Sauco" or Elder (*Sambucus australis* Cham. et Schlecht.). The undergrowth or brushwood

consists principally of the poisonous (to livestock) "Durasnillo negro" (*Cestrum parqui* L'Hérit.) and the prickly sweet-flowered "Brusquilla." The blue Passion-flower with its golden fruit is common in all the woods, as are various other creepers *; and a few Air-plants (*Oncidium*? sp.), with purple and crimson blossoms. The preceding are the most salient features in the woodlands.

The "camp," as all the English familiarly call it (from "el campo," the country, or plains), is quite level in this district, no roll in the prairie. Sir Francis Head, who, in his 'Ride Across the Pampas,' delineates them better than anyone I know, gives a most graphic description of the way in which a rancho, a tree, or a herd of cattle or horses, appears on the horizon, is reached, passed, and fades in the distance, to be replaced by some such other object, as the rider gallops steadily on-fifty miles before noon, ninety or a hundred by the time he finally dismounts for the last time and unsaddles his second, third, or fourth horse (verily, he was a mighty rider before the Lord, was the said Sir F. Head !). Words, however, cannot describe the Pampas; they need to be seen to be appreciated properly. It is strange that various writers find their influence to be gloomy and saddening, and attribute the natural gravity of the Gaucho (the Horseman of the Plains) to this most unnatural cause. They are solemn and impressive at times -in a magnificent thunderstorm, rolling up from the horizon to the zenith in a few minutes; or at night, with a fierce Pampero wind driving a few white clouds across the full moon, and bearing on its blast the uncanny shricks of the "Mad Widow" (the Southern Courlan, Aramus scolopaceus Gm.) from the swamps; or again, when the said swamps have been fired in a great drought, and by day or night the landscape becomes a roaring crackling inferno of fire and smoke. But commend me to the warm sunlight and the pure air, the sensation of perfect freedom in that vast solitude, the line where plain and sky meet so palpably yet so

* The well-known Solanum-green and scarlet-berried-is also indigenous and abundant.

unattainably, though the long leagues gather behind one, day after day; while the only sounds are those of the breeze among the grasses and scarlet verbena, the occasional cry of a bird, and the continuous dull beat of the horse's hoofs on the springy turf, to the jingling accompaniment of the Spanish saddle-housings and the cheery bell of the madrina mare leading the tropilla ahead. "Paja y cielo," as Cunninghame Graham aptly puts it, "Grass and sky."

The actual alluvial soil here is shallow, and consists of about nine inches of black earth, followed by a foot of grey clay ("greda"); then comes sand, a deeper belt of blue clay, and after that-more sand ! I had hitherto written that the preceding expressed all that was known of the depth of these But a few years ago the Government undertook strata. the sinking of an artesian well in the township of General Lavalle or Ajó. The cost ran to several thousand pounds; the boring reached a depth of over 2500 feet; no potable water was struck, and the geological formation throughout was purely Pampean-sand, clay, loëss, etc. There are no stones or pebbles in the soil, not even the dimension of a pin-head; but sea-shells make their appearance at from eight to ten feet below the surface of the ground. Water is found at a depth of from four to eight feet, but is often brackish or even salt. It is, of course, surface or rainwater, and is retained in situ by the second belt of blue clay I have mentioned; if this is traversed, the up-welling is a water not only salt, but bitter. Probably the district only averages six feet above the level of the sea.

Of the herbage or grasses, suffice it to say that they have undergone various important modifications during the past century of grazing—the Pampa-grass, for example, formerly covering a large part of the centre of the estancia, being only found in the rincónes now, its place being taken by soft grasses. De Moussy, in his work on the Argentine Republic, includes this district among the highest class of pastoral lands in the Province of Buenos Ayres; and Buenos Ayres yields precedence to no other country in the world in that respect. Rye-grass is the staple indigenous pasture; in a good season I have frequently seen it stirrup-high, wetting my feet with the early dew. Thistles, of various species, it is needless to say, abound; no writer on the Pampas has failed to expatiate on the giant thistle-beds (sometimes higher than a rider's head) which make their appearance in the spring and summer; nor, indeed, is the unfortunate traveller who has been "thistled" (i. e., lost his way at night, possibly with an unruly tropilla of horses) likely to forget the unpleasant and painful experience. Very awkward, too, is the "Junquillo negro" (Juncus acutus Lam.), found more especially on the sandy soils of the coast, where it practically covers the terrain. Trefoils and clovers are abundant-the "Trebol de Olór" (Melilotus parviflora Desf.), the common "Carretilla," and others. The pretty heath-like "Hierba de Perdíz" (Margyricarpus setosus R. & P.) cannot be overlooked. Nor the abominable Xanthium spinosum, so well-named by Linnæus and by the Gauchos "Sepa caballo." The "Altemisa" (Tagetes glandulifera Schenk) communicates its pungent flavour to the very mutton itself. I take it that the "Camambú" (Physalis alkikengi Linn.) is a near relative of the Cape gooseberry. And I would particularly note the "Rossetta" (Cenchrus tribuloides Linn.), a useless hard grass with a cruel mace-like head, admirably suited to lame sheep and dogs, which made its first appearance after the flood of 1877, and is now found everywhere. Nor is colour wanting ; flowers are more or less abundant. The pretty white blossom of the "Hierba de mosquito" (Lippia nodiflora Rich) is dominant in the summer. Acres of a sorrel (of which there are two varieties) give a lovely pink or pale lemon-coloured carpeting, extremely rare and delicate. The two verbenas, scarlet and mauve (the white one I have only met in the Banda Oriental), are common. Convolvulus and vetches of various kinds abound. And there are many others.

In paleontological remains the district is very poor, as might be inferred from its low elevation. Fragments of the carapace of the *Glyptodon* are occasionally found on the Atlantic sea-board, amongst the *débris* scattered along the shore. There are also the remains of six more or less incomplete skeletons of whales on the Yngleses alone.

About the year 1876 I made the interesting ethnological discovery (in four different localities) of extensive remains of Indian pottery, "bolas perdidas," flints, etc. The flints were very numerous as regards flakes, and some of the finished arrow-heads of excellent workmanship. These last conclusively prove that they belonged to the former Guarani Indians, and not to the present races now inhabiting the pampas of Buenos Ayres. [N.B.—The preceding is a quotation from my previous paper. The end of the Indians— Tehuelche and Pchuelche—came in 1880, when General Roca's expedition swept clean the Pampa Central.]

What follows, then, as may be gathered from these notes, is a natural division of all our birds into three great classes —namely, those of the wood, the plain, and the swamps or marshes. The rincónes have also a few species peculiar to them; but, again, on the other hand, the shore has none.

The thirty-seven years that have passed since I last wrote have produced no changes in these bird-solitudes, now more of a sanctuary than ever. The general use of wire-fencing has been conducive to their protection, inasmuch that the public is restricted to the roads; the paddock-system has reduced the number of shepherds by two-thirds; and the gangs of hunters of that giant water-rat, the "Nutria" (*Myopotamus coypu*), accompanied by packs of dogs, no longer rove over the land at their own sweet will*. The nearest railhead is still sixty miles off, and likely to remain so. Various droughts (one of four years' duration) and floods (the last—the greatest on record—enduring for nearly three years) were productive of extraordinary variations in bird-life; but have always been followed by a return

* "Valiente! Me vas à privar de nutriar donde quiero?" (Anglice: "Oh boaster; Dost thou purpose forbidding me to hunt the nutria anywhere I choose?"—using the insolent second person) was the truculent reply I received on one occasion from the leader of half-a-dozen of these men, who, with a score of mongrels, were raising pandemonium as they systematically quartered a half-dry swamp.

to normal conditions. In the course of the big drought the swamps not only dried up in all their extension, but their aquatic vegetation totally disappeared, and they became at one with the surrounding plains. In October of 1913, when the great flood touched its highest point, two-thirds of the Yngleses was under water; and the old joke was revived that the Gibsons bred their Lincoln sheep to a web-footed type! In the total course of forty-five years, I have observed the increase of one or two species of birds; whilst a few others have diminished, from natural causes.

Probably, I may not have further opportunities of continuing these notes. Voyages to and from the River Plate are not of a festive nature at present. I also found on my last two visits to the Yngleses (1915 and 1916) that my once-good horses had degenerated sadly—they galloped heavily and stumbled frequently. Localities, too, had struggled absurdly far apart, as compared with my former estimates (though, of course, the "legua pampa" was always of a similar quantity to the "Scotch mile"). However, the Buenos Ayres Museum and myself have arranged to exploit the district conjointly, by means of one of the museum's collectors. My former collections are to be found in the Museums of Buenos Ayres, London (Natural History Museum), Edinburgh, and Dresden. I believe there are a few specimens also in Dublin and Cambridge.

To Mr. Ogilvie-Grant and Mr. Charles Chubb, of the Natural History Museum, I am indebted for much kindly assistance, in identification and other matters, as also to the good services of Mr. James Wells—which I take this opportunity of gratefully acknowledging.

The enumeration and nomenclature herein followed is that of Sclater and Hudson's 'Argentine Ornithology,' except when the species in question does not happen to figure in that work. This publication has been my general authority since it first saw the light in 1889; nor could I wish a better guide in field-work than Mr. Hudson's accurate and interesting observations. Otherwise, any further references are confined to my own former paper

[Ibis.

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(Ibis, 1879, pp. 405-424; 1880, pp. 1-38, 153-169), and those by Mr. Claude H. B. Grant (Ibis, 1911, pp. 80-137, 317-350, 459-478; 1912, pp. 273-280), who collected in this neighbourhood on behalf of the British Museum and myself.

2. Turdus rufiventris Vieill. Red-bellied Thrush.

Very abundant in the woods and garden, and even in the smaller plantations and gardens of the numerous shepherds. The song, sweet and clear, may be heard all the year round, though, of course, is more in evidence in the spring, and then generally in the early morning and the evening. Its partiality for grapes and figs is much to be deplored, for, of the various species of fruit-eaters which devastate the vines and fig-trees, the mellow-toned Thrush is the one least readily to be spared. It will nest familiarly in a jasmine of my verandah, or in

a shrub a few yards from the front-door. And I have found a nest with young, inside a deserted old tumble-down rancho, round which there grew only half-a-dozen stunted acaciatrees, and the surroundings were swamp and plain. The usual situation, however, is an elder-tree or bush, in the woods by preference; in any case it is concealed as much as possible by thick foliage. The height from the ground varies from three to ten feet, the general average being about five or six. It is generally very well put together; sometimes deeply cup-shaped and solid. The outer materials are of grass, moss, wool, and dry plant-stems; then follows a course of mud, more or less thick (on one occasion I found this substituted by a mixture of sand and dry grass); the lining consists generally of fine roots, fibres, or grass. early as 26 August I have observed a completed nest, though I do not recollect taking eggs until a month later. All the

month of October constitutes the laying season. Two nests with full-fledged young, on 27 January and 2 February respectively, are exceptional, and may represent a second brood.

The eggs not unfrequently number four, though three is

the more usual clutch and the number of nestlings reared. Ground-colour pale blue, thickly spotted with reddish brown; generally most marked towards upper end, where it sometimes takes the form of a ring or cap. The blue is more pronounced than in those of the Calandria Mocking-bird (*Mimus modulator*), and the eggs generally rounder in shape; otherwise there is much and confusing similarity between the eggs of the species.

Measurements: General average 29×21 mm. Largest clutch 29×22 mm.; smallest 26×20 mm.

6. Mimus modulator Gould. Calandria Mocking-bird.

It would be impossible to add to, or improve upon, Mr. Hudson's notes on this species. As abundant in the district as Turdus rufiventris, it shares in many respects -food and locality-the latter's habits. It is a voracious and bold fruit-eater, and is not deterred by scarcerows in the shape of stuffed cats and hawks, nor driven far afield by shooting. Generally distributed about the woods, it is equally at home in the patio and around the houses, where it examines the fresh sheep-skins and the rubbish-boxes in front of the kitchens, for scraps of meat and grease. Like the Thrush above referred to, it will nest in the creepers of my house-verandah; and, what is more, the whole family will continue to roost subsequently in the same locality until the approach of the following spring. Indeed, the continuity of the family-association is very marked all through the autumn and the greater part of winter. A group of nine, however, recorded in the middle of April, must have consisted of two families. Courageous and pugnacious are adjectives well merited by the Calandria. Away back in the vear 1875 I made the following note :-- "Saw a Calandriaafter repeatedly trying to dislodge a Carancho Carrion-Hawk (Polyborus tharus) from its perch on the top of a large Tala tree-deliberately alight on its back and remain there for fully half-a-minute, the Carancho merely looking round at it once or twice." The date being 5 August, there could be no question of a nest or young to defend. It was a day SER. X .--- VOL. VI. 2 е

of surprises, for, in an open part of the same paddock, my attention was drawn to an attack by a very large nocturnal moth (Erebia odora?) on a Chingolo Sparrow (Zonotrichia pileata)-a most Homeric combat, all in the bright sunlight: an incident related in my former paper. But especially in defence of its nest is the Calandria's bravery exhibited. It scolds angrily, and will approach quite close to the trespasser. Once I found a pair nesting in a quincetree at a singularly isolated "puesto" on the Atlantic scaboard, where the Puestero-a warden of the fenceswas absent all the day, and the two or three species of wood-birds inhabiting the few trees of the garden were little accustomed to the sight of man. The Calandrias vehemently disputed my intrusion, and one of them (the female) kept pace with my hand as I parted the branches to reach the nest, which was just on the level of my eyes. I reached the edge on the one side simultaneously with the bird on the other, and had only time to feel there were two eggs when my hand got a violent and quite sufficiently painful peck from the feathered fury. My curiosity was more than satisfied, and I beat a retreat.

The nesting-season begins early in October, when the first eggs are laid, and extends to the end of the first week in November, being most general in the second half of the former month. I have seen a couple of nests with eggs at the end of November, and actually noted one on the 10th of January; but these are marked exceptions to the general rule. The bulk are placed in Tala trees (frequently isolated or apart from the main woods), Coronillo trees, Elder trees, or bushes; and, in the garden, Quince or Poplar trees. There is not much attempt at concealment, and, indeed, the scolding activity of the birds betrays the cause of their concern. I have known of a nest in an Elder bush only one foot from the ground, and another in a Poplar at the height of ten feet; but the general average is about five.

The nest itself is strongly built on the outside of thorny twigs from the Tala tree, followed by dry roots of grass and occasionally some wool or moss (in many cases this is mixed

with a little earthy matter or sand). The lining consists of fine roots, to which often is added horsehair and, more rarely, some wool or a little cow-hair.

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The full clutch of eggs is from three to four (I have seen one of five), in the proportion of two of the former to one of the latter. Ground-colour pale or dull blue, thickly marked with reddish brown, tending to increase towards blunt end. They are more even in appearance and shape than those of *Turdus rufiventris*, with which, as I have remarked, they may be easily confounded.

Measurements : General average 28×21 mm. Largest clutch 30×21 mm.; smallest 28×20 mm.

8. Minus triurus (Vieill.). White-banded Mocking-bird. Of this Mocking-bird, so enthusiastically celebrated by Hudson, I have only one recorded appearance—a solitary specimen shot by Mr. M. A. Runnacles from an Ombu tree in the Estancia patio, in the autumn of 1896. We were both much interested in its occurrence.

10. Polioptila dumicola (Vieill.). Brush-loving Fly-snapper. A most dainty and charming species, resident, but irregular in its appearance, irrespective of any question of migration. Generally in pairs (I have seen three such in one morning), they sometimes associate three or four together, even five or six, which last, being at the end of January, probably constituted a family group. These pairs or parties may sometimes be found for several days in the same locality, after which they move on. Either they are worshippers of the sun for its heat, or profit by its light in their foodresearches; for I have frequently observed one of the groups busily employed on the cast side of a small wood in the early morning, and on the west side towards sundown. Mr. Hudson, after alluding to its "short notes," states that "it has no song." I myself, on the contrary, find (under date of 8 August) that I "twice heard it singing very prettily"; and again (from 1-17 September), "noticed that it has a very sweet short song."

The breeding-season is in the first half of November, to judge from the very sparse number of nests (only four) which I have obtained. Two of these were in Tala trees, one in a cleft and the other at the very extremity of a branch, to which it was attached like a cup to its handle; the other two hidden in thorny "Brusquilla" bushes: all four about six feet from the ground. The localities chosen were sunny, and in the most retired parts of the woods. Beautifully built of lichens, moss, and spider-webs—lined with horsehair, small feathers and down, and rather cup-shaped—the nests much resemble those of the Chaffinch. The respective clutches of the four nests were two, three, three, and six the last clutch of six being laid between 2 and 9 November. The colour of the eggs is a pale yellowish buff, and they are rather roundish. Measurements: 16×13 mm.

12. Troglodytes furvus (Gm.). Brown House-Wren.

I have absolutely nothing to add to the notes in my former paper.

15. Anthus correndera Vieill. Cachila Pipit.

Until the advent of Mr. Claude H. B. Grant in 1908, I had failed to separate this species from the following one (A. furcatus). Accordingly, all my former Correndera field-notes are valueless. Mr. Grant himself, however, has omitted to describe the eggs of both birds (vide Ibis, 1911, p. 87), so I herewith supplement his notes, from clutches of his own collecting.

A. correndera. The shape is not so elongated as would be inferred from Hudson, though perhaps more so than those of A. furcatus. Ground-colour a very dirty white, thickly spotted with dusky brown and drab. "In some eggs the spots are confluent," as Hudson says, "the whole shell being of a dull brownish-drab colour." To which may be added a tendency to form a ring at the blunt end. According to both Hudson and Grant, the full clutch is four. Measurements : Average 20×15 mm,

16. Anthus furcatus d'Orb. et Lafr. Fork-tail Pipit.

Shape of eggs somewhat rounder than in A. correndera. Ground-colour and markings much lighter; the former whitish, the latter lighter brown spots and speckles, with rarer tendency to increase towards the blunt end. There are, however, a few dark hair-like streaks at the blunt end, which are more noticeable in this species than in A. correndera. Measurements: Average 19×14 mm.

17. Parula pitiayumi (Vieill.). Pitiayumi Wood-singer.

I have no note of this species from 1872 (when I took up residence) until 1880. During the subsequent twelve years it occurred eight times, always in the winter months, from April to August. On six of these occasions they were single birds; on the other two a pair, which remained in evidence during all the month of August 1881 and all of May 1902 respectively. Two of the single birds were seen in the woods; the others were of the garden.

Mr. Grant chronicles it during his stay, 1908-9, but considers it only a winter visitor, in accordance with my own notes. Subsequent to 1902, there is a blank in my diary until the spring of 1913, when my previous conceptions were quite upset. On the 1st of November there appeared a single bird at the Cypress and Orange trees alongside of my house : until the 26th of December it was seen frequently and seemed very tame; twice it came to the dining-room window in search of flies, whilst we were at table, and twice it alighted on a rose-bush quite close to me (once quietly to discuss a catapillar). At other times it was observed diligently quartering the Cypress and Orange trees in search of small insects-Tit-fashion-or extracting honey from flowers. On one occasion it amused itself by actually driving off the scene that most pugnacious Tyrant-bird, Lichenops perspicillatus. My daughter was positive that she saw no less than three together on 8 November, and on 26 December I fancied there were two. Otherwise, only one was in evidence, and this continued to haunt the particular

Cypress adjoining my house in a way that strongly indicated a nest (but which I failed to locate amidst the dense foliage). On the morning of 8 January, after a night's thunderstorm and heavy rain, I saw two adults and what I took to be two full-fledged young in the usual lower part of the Cypress. After that, until 25 February, one bird only continued to be observed in its favourite locality, and ceased to appear after that date.

25. Progne furcata Baird. Purple Martin.

When writing on this species in 'The Ibis' (1880, p. 23), under the designation of *Progne purpurea* Linn., I was actually referring to *Progne chalybea* Gm. The real *furcata* is summarized in the paragraph which says:— "There were two entirely black specimens which used to appear annually at the head-station; but I have not seen them for the last year or two."

Mr. Grant records one which he obtained (the only one observed) in 1909 ('1bis,' 1911, p. 89).

On 13 September, 1880, there appeared two. On 16 September, 1881, one. On 15 September, 1882, one. All the preceding—mine and Mr. Grant's—were in association with *Progne chalybea*. With one other exception (18 November, 1899), I have noted none since 1882.

26. Progne chalybea (Gm.). Domestic Martin.

To my former notes ('Ibis,' 1880, p. 23, under *P. jurcata*), I have only one further observation to add. Mr. Hudson states that it "never breeds in the domed nests of other birds in trees, a situation always resorted to by the Tree-Martin (*P. tapera*)," referring, of course, to the nests of the Oven-bird (*Furnarius rufus*). Two such cases, however, have come under my notice, on 5 and 12 November, 1879, which I find jotted down under the remark : "Noticed that a pair of Domestic Martins have taken possession of an Oven-bird's nest, closing up the lower half of the entrance with mud"; and, "another similar case to the preceding observed."

27. Progne tapera (Linn.). Tree-Martin.

Again, I have few further notes to add to my former observations on this species, beyond confirming Mr. Hudson's remarks regarding its autumnal departure. I have occasionally, but not often, seen it congregated on a tree or trees in the wood, to the number of fifteen or twenty, and even in one instance some thirty, adults and young, in the month between 13 February and 10 March. But this, undoubtedly, is unusual.

One characteristic of *P. tapera* which has been overlooked by Hudson, Grant, and, hitherto, myself, is its untiring pugnacity. How often have I seen the victim—perhaps even the Tree Teal (*Querquedula flavirostris*) — winding silently and desperately through the trees, whilst the equally mute Tree-Martin sped closely after it, curving with every swerve of the other like a baleful shadow. My carpenter, alluding to this habit, told me how it bullied his Pigeons, getting behind and below them and striking up at the root of the tail, sometimes knocking feathers out. His birds were much afraid of these attacks, and would promptly drop down into his yard when struck.

28. Petrochelidon pyrrhonota (Vieill.). Red-backed Rock-Martin.

Mr. Grant first chronicled this bird as a passing migrant on 2 March, 1909, and again on 23 February, 1910. Another correspondent further wrote me on 29 March, 1910:— "*P. pyrrhonota* is going across now. I saw a flock of from twenty to thirty this morning." It would seem not to make any stay in our district.

29. Tachycineta leucorrhoa (Vieill.). White - rumped Swallow.

Mr. Hudson has written so fully on this species that he has left little for me to add. For a migrant, it is difficult to specify its arrival and departure. As he says, there is an invariable re-appearance throughout the winter on sunny days, however cold. For example, June 1875 happened to be a particularly cold month, notwithstanding which I observed it practically every day about the buildings, woods, and plains; on the 19th I recorded "Five or six seen in the open campo, though the thermometer was at 23° F., and ice on the swamps"; on the 24th, "Very cold. After sundown saw nine or ten about the patio, chasing one another and twittering." Again, on 10 July, 1876, "Some thirty seen perched on a fence. Mild day." Or, 27 April, 1877, "Fifty or sixty seen in open campo, perched on or flying about a sheep-corral. Fine day." And so on, during many years' records. Take another abnormal instance. The 22nd of August is still exceedingly early spring, yet "Late in the afternoon a flock of over fifty made its appearance, flying about over the head-station and occasionally alighting on one of the Ombú trees in the patio, all apparently very tired. Bitterly cold day, the continuance of months of extremely frosty and dry weather. These had vanished again, the next day." Roughly speaking, the consensus of my notes for this district would give the middle of August for the spring arrival and the middle of April for the general autumnal departure.

As described by Mr. Hudson, the nesting-season is initiated by much inspection of old and new sites, and a prolonged warfare between the would-be occupants. Taken as a whole, the sites which are preferred are those in trees, generally the deserted abode of the Red-crested Woodpecker (Chrysoptilus cristatus); next in favour are holes in buildings and mouths of waterpipes, etc. It has never been my fortune to corroborate Mr. Hudson's statement that "It sometimes lays in a tree, in a large nest, previously abandoned, of the Lenatero or Firewoodgatherer (Anumbius acuticaudatus)." But I once found a nest, all feathers, within that of an Oven-bird (Furnarius rufus). On the neighbouring Estancia of the Tuyu one of the entrances to the garden of the head-station is through an archway formed by the jawbones of a whale. In a cavity of this, about eight feet from the ground, I observed a Swallow flying in and out, evidently to its nest. The fact

of a pair of Swallows having taken up their abode in the skull of a whale is somewhat reminiscent of the anachronism of Samson's beehive in the dead lion !

Four or five eggs is the general number of a clutch (only once have I seen six). These are pure white, of an elon-gated pear-shape, and average 21×14 mm.

30. Atticora cyanoleuca (Vieill.). Bank-Swallow.

The Bank-Swallow has, to all practical purposes, passed beyond my ken for the last thirty-five years. It is still to be seen occasionally in the district (see Ibis, 1911, p. 92). But in remarking that "it does not now breed in the Ajó district, or if so very sparingly," Mr. Grant omits to furnish the clue to his statement. Mr. Hudson describes how the species was common on the level Pampas because it took possession of the forsaken hole excavated by the little Miner (Geositta cunicularia) in the brow of the Vizcacha or Biscacho's burrow. Now it so happens that many years ago there was carried out a systematic extirpation of Vizcacha (Lagostomus trichodactylus), with the result that nowadays, to take our own Estancia, a Vizcacha is as likely to be found as the extinct Red Wolf or Aguará Guazú (Canis jubatus), whilst their erstwhile innumerable villages are fallen in and assimilated completely to the surrounding grass plain. With the Vizcacha went the Miner (for it found no little bank of any kind to excavate in, except an occasional bunker in the sand-hills); and without the Miner the Bank-Swallow lost the landlord in whose flat it had a reversionary interest. In the foregoing is another curious instance of the effects produced in the chain of Nature by tampering with one of its links or factors. [In my 1879 paper I erroneously alluded to this species as Hirundo leucorrhoa.]

The nest is placed in the chamber at the end of the passage or burrow, is built of dry grass, and lined with soft feathers. The eggs (of which I have taken five to the clutch) are laid towards the end of October; they are pure white and pointed. Unfortunately I do not possess the measurements. 38. Tanagra bonariensis (Gm.). Blue-and-yellow Tanager.

In my former notes I alluded to this species as Tanagra striata.

Mr. Grant expresses a strong belief as to its nesting in the district, but the fact remains to be proved. Generally it is scarcer in the months of October and November (so much I find from the long record in my diary). Equally true is it that both males and females were never entirely wanting during these months, in pairs or small flocks.

Iris blood-red; bill, above dark brown, below whitish; feet dark brown.

53. Spermophila cærulescens Vieill. Screaming Finch.

Until Mr. Grant recorded this species in 1909 and again in 1910 (when two nests were taken) I was only aware of its visits to this district by one specimen, a female, which I shot in the garden in May of 1899.

Mr. Hudson's description of the nest is deservedly eulogistic. One in my possession, of Mr. Grant's collecting, bears out his praise. It was situated in a shrub, in a clump of bamboos. Placed between five forked stems, it is wedged in position, not attached. Built of thin pale-coloured fibrous roots, eleverly interwoven; but so frail that it can be seen through, from bottom or sides. A few of the dead leaves of the stems sustaining it are ingeniously caught-in on the outside, and aid the disguise. Width : outside, $2\frac{3}{4}$ in., depth 2 in.; inside, $2 \times 1\frac{1}{2}$ in. The one egg is thin-shelled and blunt-pointed. Ground-colour dirty white, spotted with bluish brown (mostly towards blunt end, where a cap is formed) and a few black specks. Measurements : 18×12 mm.

54. Paroaria cucullata Lath. Cardinal Finch.

To my former notes I have only to add that the Cardinal also nests occasionally in an Elder tree or bush. In one such case, where the nest was only five feet from the ground, it contained the unusual number of four eggs, three being the normal clutch.

Adult. Iris reddish brown ; bill brown above, whitish below ; feet black.

Juv. Iris brown ; bill dark brown ; feet dark grey.

59. Poospiza nigrorufa d'Orb. et Lafr. Black-and-chestnut Warbling Finch.

This Finch is to be found about the woods, and occasionally in dry swamps or the coverts of "Junquillo negro" (Juncus acutus).

Though in evidence all the year round, singly or in pairs, it is not an abundant species. One summer, from 1 November, 1898, to 31 January, 1899, proved a singular exception. I find it recorded as "Unusually plentiful. Instead of the two or three strictly localised pairs of former years, it is to be seen and heard everywhere —in the woods, garden, sub-stations, thistle-beds, and swamps. Brown, the carpenter, had no difficulty in trapping some for his aviary, where they quickly became at home with his canaries. He described to me a peculiar habit of the male, which occasionally spreads its tail like a Turkey-cock" (I cannot personally confirm the last statement). It always has a tendency in its haunts to brushwood and weed-coverts.

The constantly-iterated song is pretty, though only consisting of a few notes, and is not unlike that of the Chaffinch. Frequently I have been aware of the presence of the bird, without actually being able to set eyes on it, owing to its secluded surroundings amidst the dense undergrowth.

The food in the crop I have found to be small beetles.

I confess the nest is very difficult to find. Two are described respectively in my notes as follows :—" Placed on the top of a little Tala stump, about a foot from the ground, among thick dry brushwood and weeds. Built rather slovenly of dry grass and plant stems, and lined with fine roots and a few horsehairs. Two eggs. 12th October, 1879." The second :—" Situated in a big thistle, about a foot from the ground, in an opening in a wood. Built of dry grass and lined with hair. Two (much-incubated) eggs with one of *Molothrus bonariensis*. 1st November, 1881." The eggs are as described by Hudson :—" Of a pale bluish ground-colour, irregularly marked with black and very dark brown spots, and in some instances clouded with faint grey." I regret I have no specimens for measurements.

77. Zonotrichia pileata (Bodd.). Chingolo Song-Sparrow. I have nothing of importance to add to my former notes.

I have nothing of importance to add to my former notes. In the three last months of 1913 it was extraordinarily in evidence, owing to the great flood having driven it out of all the lower grounds. In the garden, consequently, the havoc it caused was of the very worst nature.

It will be of interest to watch the effects produced by the advent of its European congener, *Passer domesticus* Linn. (now, unhappily, established in our midst).

Passer domesticus Linn. Domestic Sparrow.

On revisiting the Yngleses in the summer of 1916-17, I found this undesirable alien firmly established at the head-station. In all the holes under the eaves of the buildings, and even in the boxes put up for the benefit of the Domestic Martin (Progne chalubea), were its nests to be found, whilst a considerable number roosted at night under the same eaves. None but a bird of this audacious species would systematically cling outside the cage of an innocent little Parroquet, suspended over the kitchen door, and shamelessly pilfer its sopped bread! Antonio, the gardener, was promptly despatched, with a flea in his ear and a wire hook in his hand, to drag out all the nests, and I was sadly ungrateful when he appeared at the office-door with a double handful of the familiar eggs and the solicitous query, "Did I want them for my collection?" It is much to be feared that all such efforts will be in vain, for I have it on record that Mr. Grant took a nest situated in an old nest of the Firewood-gatherer (Anumbius acuticaudatus). And in any case, a bird of such versatility and resource must necessarily baffle all ordinary means of repression.

The species was introduced into the Argentine somewhere

about a quarter of a century ago. Rumour has it that a well-known German brewer of Buenos Ayres longed for its familiar presence in the yards of his establishment, where grain was abundant. Anyhow, I was startled to recognize it high up in the decorative architecture of Calle Florida (the Bond Street of Buenos Ayres) in 1890. Since then it has spread all over the country, encouraged by the development of the grain production, and facilitated by the network of railways with their corresponding leakage from traffic.

Merely from method I add the description of the eggs :--Ground-colour dirty white, thickly spotted with dark ash-grey, increasing towards the blunt end. Measurements 21×16 mm.

83. Embernagra platensis (Gm.). Red-billed Ground-Finch.

Rarely or never seen about the woods, nor in the open plains. Always to be found in our "rincónes" amidst the great Pampa grass and Esparto beds, and in the equally vast "Junquillo negro" coverts of the neighbouring Tuyu estancia, occasionally in dry swamps in time of drought, and sometimes in a little jungle of the "Carda" (Agave sp.) which grows on the sandier soils.

The crops examined contained seeds and small beetles.

In qualification of Mr. Hudson's disclaimer, I have once seen it followed by a young *Molothrus bonariensis*, which it was feeding, and also have the record of a nest which contained an egg of the same parent.

It would seem to build rather late in the spring, in spite of pairing for life, the record of half-a-dozen nests ranging from 27 October to 20 November, mostly in the latter month. These are difficult to find, well-hidden and placed low in a dense clump of the particularly obnoxious "Junquillo negro," fairly well-built of dry grass and lined with finer material of the same nature.

The full clutch of eggs (undescribed by either Hudson or Grant) is three. There is considerable variation in these.

Sometimes white is the ground-colour, with very dark redbrown spots and streaks, nearly all gathered about the apex of the blunt end. Or the ground-colour may be of a pale warmish-yellow, with warm red specks, spots, and blotches, some violaceous sub-surface spots, and interlaced streaks of bright red-brown mostly at the blunt end, where they form a circle. The general appearance is bold and striking. Measurements: 25×18 mm.

87. Chrysomitris icterica (Licht.). Black-headed Siskin.

I deal fully with this species in my former paper under the name of *C. magellanica* Burm.

In nesting, the height from the ground varies from four to eight feet. Four is the predominant clutch (never exceeded). Only on one occasion have I found a nest containing both types of eggs, one being pure white, the other two of the delicately-spotted variety.

89. Sycalis pelzelni Scl. Yellow House-Sparrow.

It is impossible to improve upon Mr. Hudson's detailed description of this species. At best, I can only supplement it with a few details.

As a rule, it nests in the old abode of the Oven-bird, and in the woods here there are always many vacant homes of Furnarius rufus. The same statement applies to the Firewood-gatherer (Anumbius acuticaudatus); many nests, and many Yellow House-Sparrow tenants. I have also found it occupying the hole excavated by a Red-crested Woodpecker (Chrysoptilus cristatus). About the buildings, a hole in the caves or a waterpipe provides it with a home. But, to me, the most curious site was the nest of a Rushloving Spine-tail (Phlwocryptes melanops) suspended of course to some reeds in a swamp, and which it had lined with a little wool and hair. Another extraordinary case was where a pair of Oven-birds had built upon the "cigueña" (the old-world stork or crane for drawing water) of a well, doubtless in the winter-time and when the well was not in use. When I saw it, at the end of November, the

occupants were a couple of House-Sparrows, and they seemed to be quite at their ease, though the "cigueña" was being swung up and down by hand, for a couple of hours and twice a day, in order to fill the sheep-troughs.

I have taken eggs from the end of October to the beginning of February, November and December being the usual months. The clutches are three or four; one reached six. In ground-colour they are whitish brown, thickly marked with dark brown or brown and dark ash-grey. Measurements: 20×15 mm.

91. Sycalis luteola (Sparrm.). Misto Seed-Finch.

All the year round this species is to be found in flocks of from fifty to several hundreds, generally in the open plains or the paddocks, very frequently in dry swamps, and occasionally in a large opening amidst the woods. Some of these flocks are peculiarly local, and one may go with perfect confidence to a certain point day after day (or following a year's absence) and not be disappointed. But so well does the plumage harmonise with the surroundings, and so tame is the species, that its presence is generally not detected until the flock rises at one's very feet.

I cannot say that nests are numerous, though some years they are more so than others. And the season is late, from the middle of November to early in January, the majority occurring in December. The nest is well-hidden in a tuft of grass, but very frequently in a stunted clump of rushes at the edge of a dry swamp; generally in that case (though not invariably) it is raised a little above the ground. In structure it is cup-shaped, about 31 inches in diameter by 21 inches deep, outside measurement; sometimes well-built, at other times loosely. The outside consists of dry grass and roots, followed by a little moss, and it is lined entirely with horsehair; or, built of strips of dry rushes, and lined with a little wool, fine grass-stems, roots, and a feather or two. The full clutch of e gs is five, the more general number four. They are round rather than pointed as described by Hudson. fragile, and daintily tinted. Ground-colour white or bluish white, thickly speckled and spotted with reddish brown. Sometimes these markings are generally distributed and large; in other cases small and delicate, or gathered in a ring at the blunt end. Measurements: 18×14 mm.

94. Molothrus bonariensis (Gm.). Argentine Cow-bird.

Since I wrote my former notes on this species, its habits, parasitical and otherwise, have been so well described by Mr. Hudson that further comment would be superfluous. From him I have learned that not only the pure white eggs found in so many strange nests are attributable to M. bonariensis, but also an endless variety of coloured specimens. Perhaps the principal characteristic which distinguishes them all is the thickness and strength of the shell, to which may be added the very round shape and glossy texture. Measurements: 22×19 mm.

The iris in the adult is very dark brown.

95. Molothrus rufoaxillaris Cassin. Screaming Cow-bird.

As in the case of *M. bonariensis*, Mr. Hudson has fully dealt with this species, and I have nothing worth adding to his notes.

The eggs are also round in shape, thick-shelled, and glossy, though in a less degree than the former. Ground-colour pinkish white, boldly spotted, marked and streaked with red and dark brown, increasing towards the blunt end. Measurements: 24×18 mm.

The iris in the adult is dark brown.

96. Molothrus badius (Vieill.). Bay-winged Cow-bird.

Again, when Mr. Hudson has said his say about *M. badius*, there is little to add.

It nests late with us, from the beginning of November to the beginning of January. Besides the localities mentioned by Mr. Hudson, I have found nests in a hole in a willowtree in the garden, built of pieces of newspapers, string, and dry grass, and lined with horsehair; in an old nest of the Bienteveo Tyrant (*Pitangus bolivianus*), where it was a well-built deep cup of dry fine rootlets; and in an ivycovered tree, twenty feet from the ground. This last was an ill-concealed nest, leosely built of roots and grass-stalks, string, wool, moss, lichen, thistledown, etc., with no special lining, about six inches in diameter and four inches deep (outside measurement), rather shallow internally.

The clutch varies in number from four or five to as many as seven. The eggs are, again, thinner in the shell than those of the two preceding species, and are also less glossy. There is much variation in the colour of the clutches. Possibly the commoner type is represented by a pink ground-colour, spotted and marked equally all over with red and dark reddish brown, similar to, though not so bold, as in *M. rufoaxillaris*. Another clutch is of a white ground colour, boldly marked and blotched with dull reddish brown, increasing at the blunt end. A third is dirty greyish, spotted and blotched all over with pale brown. Yet another is merely whitish, densely marked with reddish brown. Measurements: 24×18 mm.

The iris in the adult is dark brown.

97. Agelæus thilius (Mol.). Yellow-shouldered Marshbird.

Mr. Hudson has again anticipated nearly all my observations.

For a Marsh-bird, this species shows a marked proclivity for the vicinity of buildings, and is also always to be found at the offal where the daily slaughter of cattle and sheep takes place. The larger flocks have sometimes a number of the Yellow-breasted Marsh-bird (*Pseudoleistes virescens*) associated with them.

The nesting-season is from late in October to early in December, most of the nests being found in November. They are placed generally in a dry flag-bed in a swamp (where they are sometimes abundant), or more rarely in a clump of "Junquillo negro." In both these cases they are either simply "lodged" in, or attached to, their dense surroundings, and about a foot to two feet from the ground.

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Sometimes they are cup-shaped and compactly built, occasionally slighter. The material is invariably the same—dry strips of the flags or a certain other water-grass, lined with finer filaments of the same. I have only once found four eggs, the normal clutch being three. The ground-colour is a pale buff or a white with a pinkish glow, boldly spotted and streaked at the blunt end with a rich dark brown, almost approaching black. Measurements: 22×17 mm.

98. Agelæus flavus (Gm.). Yellow-headed Marsh-bird.

This is a curiously irregular visitor to our district. First observed in 1875, I recorded it every subsequent year to (and inclusive of) 1882. Since then, I am not aware of having seen it again. At the risk of being prolix, the following are the detailed appearances:—

- Pair seen in a thistle-bed. 1875. Nov. 30. 1876. July 27. Flock of seven or eight on the campo. Three on campo. Oct. 5. Three or four on campo, in company with 1877. June 4. P. virescens. A flock seen on campo, in company with Oct. 1. T. defilippii. Flock of twenty to thirty on campo. 1879. Sept. 26. A few in thistle-bed. Nov. 20. Two flocks seen-one in thistle-bed, other Nov. 22. on campo. Some seen in township of Ajó. Nov. 28. Nov. 30. Two in a thistle-bed. Some in township. Dec. 7. As above, and also on campo. Dec. 20. One seen on campo, in company with some 1880. Aug. 1. Ployers! Flock of eight on campo. 1881, Oct. 9. Same flock seen again. Oct. 10. Two or three again, in above locality. Oct. 24.
 - 1882. June 10. Two seen near township, in company with *P. virescens*.

Those seen in the thistle-beds in 1879 gave me the

impression that they were nesting. From my notes I gather that all these cases were confined to the more eastern parts of the estancia Los Yngleses, none passing further inland: from which I deduct that they must either have migrated following the littoral, or crossed boldly over the mouth of the estuary of the River Plate from the Banda Oriental. It also is to be observed that these occurrences synchronize with the southern range assigned to the species by Hudson, namely, the thirty-sixth degree of latitude.

Referring to their association with the Yellow-breasted Marsh-bird (*Pseudoleistes virescens*) and De Filippi's Marsh-Starling (*Trupialis defilippii*), I remember how, riding home one evening, I came across a large gathering of the three species. The grass of the campo was short, turf-like, and emerald-green. The birds in consequence stood out in relief upon it, and the rays of the setting sun brought out all the brilliant hues as of a most brilliant carpet.

Mr. Hudson describes the nest and eggs.

In another paper of my own ('The Ibis,' July 1885) will be found similar details regarding a small nesting-colony near Paisandú, in the Banda Oriental.

99. Agelæus ruficapillus Vieill. Red-headed Marsh-bird.

Mr. Grant chronicles the only record of this species (Bull. B. O. C. xxv. p. 114, 1910). A female was obtained by Miss Runnacles in the swamps.

100. Leistes superciliaris Bp. Red-breasted Marsh-bird.

Adult.—Male: Iris brown; bill black (upper ridge of lower mandible white); feet black. Female: Iris brown; bill—upper mandible dark brown, lower one pale horncolour; feet pale horn-colour.

In effect this very beautiful species has only appeared twice in our district, in the summer of 1901 and that of 1916. In considerable numbers on both occasions, and nesting. Also, these were epochs of much drought, here as elsewhere.

The first-named year I found it in a large paddock of 2 F 2

lucerne at the neighbouring Linconia station, to which field and a similar patch or two of lucerne it was confined (the campo proper being very bare). The date was 28 October. On 22 November I again saw several, but was not successful in finding a nest. Mr. Runnaeles, the manager, told me that the lucerne-mower had revealed some nests, generally situated in the foot-print of a horse. I am not aware when it disappeared from Linconia.

On 20 December, 1916, immediately after my return to the Yngleses, I was surprised to see three males not far from the head-station, in a small dry swamp and grasscovert. Another male I found the same day, about two miles away, in the weed-grown garden of an unoccupied rancho (as in 1901, the campo was again very bare and no water anywhere). But it was not till the 5th of January, when I happened to have occasion to look over a new lucerne-field (but which contained nearly as much of the original grasses and herbage as lucerne, and had absolutely been undisturbed by stock or intruders), only a quarter of a mile from where I had observed the three males a fortnight previously, that I was pleased to find a large number, from twenty to thirty, males and females. Mr. Hudson has fully described the habits of both sexes, to which I can only offer my corroboration. The situation was a most ideal one as regards vegetation and shelter, and had been undisturbed all the spring until the mowers began to cut the principal patches of lucerne in January. Unfortunately, as can be gathered, I was somewhat late in my investigations for nests. The scythe-men found two for me: the first contained three fully-fledged young, which promptly decamped and were taken charge of by their parents ; the second had two eggs, too far incubated for preservation. Both nests were mere linings of fine rootlets to a hollow in the ground. The flock or colony was still in cvidence when I left the Yngleses about the end of January.

Eggs bluish white, spotted with reddish brown, increasing towards blunt end. Measurements: 24×17 mm.

101. Amblyramphus holosericeus (Scop.). Scarlet-headed Marsh-bird.

My former paper gave a full account of this handsome species, and the interval has not furnished me with much new material. I think it has increased in numbers, which may be attributed to the further cultivation of small plots and fields of maize in the district. It is now much more frequently observed in the woods-perching, not feeding. At the end of June 1899 I saw a flock, which must have numbered from eighty to a hundred, on the sandy ground near the head-station ; even in a maize-field, at the end of autumn, I have never seen a similar gathering. These remarks do not apply to the nesting-pairs in the swamps, which continue to be few, and are very local and faithful to their habitat, frequenting the deepest and loneliest of the larger swamps. Probably we are now favoured, or cursed (for it is very destructive to the maize) with the incursions of various migratory and predatory flocks.

The nests are no longer a rarity to me, now that 1 know where a pair of birds are likely to be found, after which it is only a matter of quartering the flag-bed, guided by the agitation of the parent-birds. I have found them from the middle of November to early in January (late breeders, as is to be seen). In situation and material the formula is curiously alike. It is built into five or six "Durasnillo" stems (Solanum glaucum Dunal), about five feet from the water, in a flag-bed of the deeper swamps; rather deeply cup-shaped and fairly compact; built of stems of the "Junco" rush (Scirpus riparius Presl) and water-grasses, and entirely lined with wiry or narrow strips of flags. Birds generally hover about, or alight close to the intruder, repeatedly uttering their sweet plaintive note.

The full clutch of eggs is three, though I have taken one of four. The ground-colour is pale blue, some with hardly a mark at all. More generally there are a few black specks, some lilac sub-surface spots, and a few strong black markings and streaks, mostly towards the blunt end. The egg is somewhat like the bird—of a strong personality. Measurements : 26×19 mm.

102. Pseudoleistes virescens (Vicill.). Yellow - breasted Marsh-bird.

Iris red-brown; bill and feet black.

Mr. Hudson has so fully dealt with this abundant species that my own notes contain nothing novel, beyond some additional nesting-notes.

It begins to build here as early as the middle of August, and makes no attempt to hide the fact from any intruder; indeed, the birds absolutely draw attention by their loud clamours and the consequent concurrence of others of the same species. The work of construction goes on so leisurely that the nests are only half-built by the middle of the month and the first eggs not laid before the 25th of September. From the middle of October to the end of November constitutes the general epoch, an occasional clutch occurring in the first week of December.

I have found a few nests in dry swamps amidst the rushes and weeds about a foot and a half from the ground, and an occasional one in a thistle-bed. But it is essentially a woodbuilder. The selection of a Tala-tree is so exceptional as to prove the rule that an Elder-bush is invariably preferred, and the nest is therein situated at a height of about six feet from the ground, the two extremes being two and ten feet. I have on record an extraordinary aberrant case of a nest in a tuft of grass in an open paddock, though quite close to the woods, taken on the 3rd of December. The nest was rather a special one in every way, and I may be pardoned for describing it in extenso :- Cup shaped, rather compact and extremely solid, measuring outside $5\frac{1}{2}$ in. across by 4 in. deep, inside 31 in. by 3 in.; built of dry grass, stems, and roots, with a base of extremely hard mud extending halfway up, sparsely lined with dry rootlets, and a good many green stems of a hard wire-like grass. Clutch of four eggs.

plastering of mud, lined with horsehair and fine roots. Four eggs is the general clutch, but I have taken several of five and, more rarely, even six. Probably the losses inflicted by various parasitical birds militate against the higher number.

The egg is a very handsome one, when seen by itself, and not to be confused by the *omnium gatherum* of its many parasites (I have a vague recollection of a nest containing thirteen eggs, not one of which was of legitimate pedigree !). Rather long-shaped, white ground-colour, but clouded reddish, and with large rich reddish-brown spots and blotches, heavier towards the larger end, where they sometimes become confluent.

Measurements of much variation: Largest clutch 30×20 mm., smallest 25×19 mm. General average 28×20 mm.

103 Trupialis militaris (Linn.). Patagonian Marsh-Starling.

104. Trupialis defilippii Bp. De Filippi's Marsh -Starling.

These two species are dealt with at length, in their range and general habits, by Mr. Hudson. In his turn, Mr. Grant has established the residence of the first, and the autumnal visits of the second species to this district

T. militaris nests on the ground in long grass, and the nest is built of dry grass.

The three eggs which constitute the clutch are striking in appearance. Ground-colour white, suffused with purplish spots, and marked with large red-brown blotches and tracings.

Measurements : Largest clutch 30×19 mm.; smallest 26×19 mm. General average 28×19 mm.

111. Myiotheretes rufiventris (Vieill.). Chocolate Tyrant.
Extremely rare in this district. From 1872 to 1898
1 may have seen perhaps half-a-dozen solitary individuals

in the winter-time. On 12 August of the last-mentioned year I saw a flock of five in the outskirts of Tapalqué, a small town in the Azul district, and I only mention the fact (unconnected with Ajó) as being the only instance of a flock observed, versus our single visitors. Mr. Grant got one specimen in January 1908, but personally I do not recollect having seen any more in Ajó since 1898.

The bird is an anachronism, and, apart from its rarity, its peculiarities have always had a fascination for me. "What is this huge and lonely Thrush?" I would ask myself on each occasion, as it unexpectedly came under my notice in the open campo. And the next moment, as it took to flight, "Thrush! No, a Plover, and of the most striking and swiftest kind!" Finally, on going home and turning up my references and diary, it cost me a mental effort to reconcile the identification with a member of the Tyrant family.

112. Tænioptera nengeta (Linn.). Pepoaza Tyrant.

The only record of this Tyrant is that by Mr. Grant-one solitary male-on 29 October, 1908.

114. Tænioptera dominicana (Vieill.). Dominican Tyrant.

As stated by Mr. Grant, this striking species is only to be found in the "rincónes," the wild lonely land of coarse grasses and saltwater creeks, or on the outskirts of the same. On the plains proper I have never seen it—for example, on the remainder of the Yngleses estancia. Nor is it likely to be overlooked, with its most conspicuous plumage of snowywhite and jet-black, perched on the highest plant possible. In its proper haunts—the "rincónes"—I have observed it all the year round, though more frequently in the winter months—generally individual birds, and occasionally a pair (these latter only occurred in the winter, which goes to confirm Grant's opinion that it does not nest with us). Two pairs have been the most seen in one day. It is exceedingly wild and difficult to get within gunshot of, and I never have been near enough to distinguish its note. 1918.] Cape San Antonio, Buenos Ayres. 399

125. Sisopygis icterophrys (Vieill.). Yellow - browed Tyrant.

Iris dark brown.

Since I wrote about this species in my former paper, it has undoubtedly become more numerous. In June, July, and August it is only occasionally seen (though since 1880 I have actually recorded it in all these months), and I should have difficulty in absolutely establishing its arrival in spring or departure in autumn.

Besides the woods and (of late years) the garden, it is sometimes found far afield—amongst the "Durasnillos" at the edge of a swamp or in a bed of "Cardas." The short low whistle, its only note, on the nest being approached, has been mentioned by Mr. Hudson. In the crop I have only found small beetles.

A goodly number of nests noted, range from 3 October to 7 December, nearly all of which appertain, however, to the first-named month. In the Tala tree, the end of a branch is selected; in a Poplar or Elder, it is placed next the stem. I have known of one only four feet from the ground, and another at a height of twelve feet; seven or eight feet is, however, the general average. The outside material consists of twigs or dry grass-stems and a little wool or moss; the lining of fine roots, horsehair, and often a few light feathers. The whole constitutes but a slight structure. I have two clutches of four eggs, the usual number being three.

The ground-colour of the eggs is a warm yellowish white, marked with a few large dark red spots, chiefly at the larger end. Measurements: 21×15 mm.

131. Lichenops perspicillatus (Gm.). Silver-billed Tyrant.

To my previously published notes on this species I have nothing to add, but somewhat to take away.

Subsequent dissection taught me that the rufous birds were not necessarily females, as I had formerly surmised.

Secondly, my description of the nest and eggs is, by a clerical error, totally erroneous and misleading. Mr. Grant

gives the correct account of the former, but omits the description of the eggs. These are of a pale yellowish ground-colour, with some large spots of dark red at the larger end. Measurements: 22×16 mm.

132. Machetornis rixosa (Vieill.). Short-winged Tyrant.

Mr. Hudson describes very fully some of the principal characteristics of this species. It is certainly a tyrant amongst the Tyrants. I have seen it attacking and pursuing birds which are themselves bullies-the Spur-winged Lapwing, the Bienteveo Tyrant, the Calandria Mockingbird, and others. On these occasions, it may perhaps elevate the brilliant crest, but this display is singularly rare. It is frequently to be seen at carrion, fly-catching, and also following the plough. Livestock attracts it, for the sake of the insects found in their vicinity; and it is a wonder how the birds escape being trodden on, such is their familiarity. Our large open patio, with its closely-worn turf, is a favourite haunt; there I have seen a family group of six, all running swiftly about or making short springs into the air, to capture flies and beetles; and I have often passed within two or three vards of others without alarming them.

The nesting-habits are eccentric, for it would generally seem to seek the shelter of a Parroquet's abode (Bolborhynchus monachus) or that of the Firewood-gatherer (Anumbius acuticaudatus)—perhaps an old or abandoned habitation—sometimes fiftcen or twenty feet from the ground. The period ranges from early in November to end of December. The nest itself is built of light twigs or dry grass, and lined with fine rootlets, horsehair, and a few feathers. Four eggs constitute the usual and full clutch.

The eggs are brownish or reddish white in ground-colour, densely marked with rich chocolate-brown, or dark brown and ash spots or stripes, running uniformly from the blunt to the small end. Measurements: 24×18 mm.

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136. Centrites niger (Bodd.). Red-backed Tyrant.

Mr. Hudson and Mr. Grant describe all we know about this species, which makes its appearance in our district in January (viz. the middle of summer), from the 3rd to the 31st, usually in the latter half of the month. By February it is very abundant and generally distributed. In July it proceeds to take its departure again, though a few remain through August and so late as 7 September. Generally, it is shy of pedestrians, though I have known one exception, when the bird repeatedly let me approach within three yards before taking to flight.

141. Hapalocercus flaviventris (d'Orb. et Lafr.). Reed-Tyrant.

Iris brown; bill dark brown; feet black.

This dainty little Tyrant comes to us in October and leaves again in April. Its habitat is invariably the grass-coverts of dry swamps and the great beds of "Junquillo negro" on this and the neighbouring Tuyu estancia, and consequently it is not easily detected or observed. It possesses a sweet clear call or note, as detailed by Mr. Hudson.

The nesting-season is from the middle of November to the middle of December. The nest, which is not easily found, may either be attached to a few "Durasnillo" or rush-stems in a dry swamp, or in a dense clump of "Junquillo negro," at a height from the ground of a few inches to three feet, more generally two feet. It is well and comfortably constructed of fine dry moss, and lined with delicate dry grass and a few feathers. I have never found a clutch of more than three eggs, and two is not an infrequent number.

The eggs are cream-coloured, and measure 18×14 mm.

146. Serpophaga subcristata (Vieill.). Small-crested Tyrant.

I would not call this species an abundant one in our district, and the records in my diary all these years are not conducive to simplicity. I find it noted in all the winter months, whilst some summers I specially state that none at all have been observed.

The latter part of October and the first half of November constitute the nesting-season, to judge from the half-dozen uests which have come under my notice. These were situated in an Elder bush, a young "Coronillo" tree (Scutia buxifolia Reiss.), or a thorn bush, all about three feet from the ground. In form compact and rather deep, they are built of lichens with some fine grassy filaments and a horsehair or two, and lined with feathers. Three is the full clutch of eggs.

The eggs are bluff-pointed, of a pale yellowish buff or cream-colour, and measure 15×12 mm.

147. Serpophaga nigricans (Vieill.). Blackish Tyrant.

Iris dark brown; bill and feet black.

More frequently observed than the previous species, and not so strictly confined to the woods. It may frequently be seen about the buildings of the head-station, in the neighbourhood of the water-tanks and feed-tubs; and is equally at home amongst the rushes of a swamp.

It nests from the middle of October to the middle of November, and the sites selected are curiously varied. In an Elder tree or bush, at any height from three to twelve feet; suspended below the eaves of a house; in a hanging flower-pot in a verandah; hung underneath the timbers of a bridge, or built into the top of a "Durasnillo" growing below; placed between a vine and the iron netting of a window; and "down the side of a well," as instanced by Mr. Grant.

As a rule, the small nest is very neat and compact, and rather deep. The materials embrace moss, wool, dry grass and plant-stems, fine roots, and spider's-webs—all quilted together; the lining consists of fine feathers.

Three is the usual clutch of eggs. These are yellowish buff or cream-colour; unspotted, and not glossy. Measurements: 18×14 mm.

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150. Cyanotis azaræ (Naum.). Many-coloured Tyrant. Iris delicate pale blue; bill and feet black.

There is little further to add to my previous notes and those of Mr. Hudson on this species, to which the name of Tyrant seems so misapplied, in view of its miniature beauty, tameness, and sweet clear call.

As stated by Mr. Hudson, it is only occasionally seen during the winter months, the majority having migrated. A drought does not necessarily drive it away; for example, the autumn of 1902 found all our swamps completely dry, notwithstanding which, I continued to observe as many as seven or eight in one locality towards the end of March. On the other hand, when the great flood of 1913 took place, I did not see a single specimen on my journey from Buenos Avres to Ajó at the end of September. Nor in any of the Yngleses swamps until 10 October, when, boating in the deepest localities, a great many were seen (generally pairs); rarely was it observed subsequently; and at the end of summer (30 March) I record the curious fact that during all the season only an occasional one was seen. "Certainly not for want of water on the estancia," is my rueful comment.

The following are the measurements of a very neat nest :--Outside, 2 in. (50 mm.) wide by the same in depth; inside, $1\frac{5}{8}$ in. (41 mm.) wide by the same in depth. Which shows the delicate compactness of the moulded walls and the fineness of the vegetable strips constituting the lining. It was attached to one single slender "Durasnillo."

Cyanotis azaræ is a late nester, from the end of November to the beginning of January. The eggs never exceed two in number, and are of a pale cream-colour, which darkens toward the blunt end and occasionally merges into a faint brownish ring there. They measure 17×13 mm.

152. Elainea albiceps (d'Orb. et Lafr.). White-crested Tyrant.

The only recorded occurrence is that of an adult male obtained by Mr. Grant on 18 January, 1909. There is another instance of a pair (if my correspondent is correct in his identification), the nest of which was obtained on 26 November, 1910. My correspondent's three eggs are pure white and pointed, and measure 25×17 mm.

158. Pitangus bolivianus (Lafr.). Bienteveo Tyrant.

I have only a few nesting-notes to add to my former account of this species. To show its familiarity or indifference to man, one nest was placed in a small lemontree just outside my bedroom window and adjoining the patio; another on a gate-post (far removed from house or tree), where there was considerable traffic. Four nests have come under my observation, which were built on the ground in the open campo, and, being only "backed-up" against a tuft of grass, were naturally very conspicuous; three of these were close to the woods of the head-station, the fourth only a short distance from an abandoned rancho with a considerable number of trees. So it is difficult to assign any reason for such a curious departure.

162. Pyrocephalus rubineus (Bodd.). Scarlet Tyrant.

I have nothing to add to my own and Mr. Hudson's notes. The year of 1913 (that of biggest flood ever known all over the Province) was marked by a great incursion of this lovely Tyrant. "More abundant and generally distributed than any previous year," I find myself writing at the end of October. Mr. Grant's observations on the moult are interesting.

The nest and eggs have been fully described. The latter measure 17×13 mm.

170. Tyrannus melancholicus (Vicill.). Melancholy Tyrant.

On 5 January, 1902, I saw a pair of this species. In his two visits to Ajó, Mr. Grant chronicles four observed, between 29 December and 12 March, and alludes to its rarity as a visitor. About the middle of January 1917, I found a pair frequenting an orchard at the Yngleses head-station. These were exceedingly shy and silent; but my opportunities were too limited for extended observation. In the course of past years, I was aware of having rare glimpses of a bird which could only have been of this species, but its wildness and swiftness had hitherto always baffled my being sure of the identification.

171. Milvulus tyrannus (Linn.). Seissor-tailed Tyrant.

Such a striking species as the Scissor-tail is sure to have its habits fully described, and consequently my former paper, along with that of Mr. Hudson and Mr. Grant's notes, affords a fairly complete account of what is known.

Its earliest chronicled appearance in Ajó is, I find, on 11 October; but it does not become abundant until the end of that month. The last departure occurs towards the end of March. I agree with Mr. Grant that the spring immigration is initiated by the males, but the rule is not absolute; for, on one occasion, whilst lying becalmed in a sailing-ship on a sunny morning off the town of La Plata, on 17 October, I noted the advent of a pair, flying low, coming from the Banda Oriental, and which were subsequently followed by a single male. In the summer of 1913-14, when our district was so greatly flooded, the species was extraordinarily abundant.

The nesting-notes require no addition, beyond the rectification of my former dictum that the number of eggs never exceeded three; as a matter of fact, four is not uncommon. These have been fully described. They measure 22×16 mm.

176. Geositta cunicularia (Vieill.). Common Miner.

"Send me some eggs of the Common Miner," was the request of Dr. Eagle Clarke, on behalf of the Edinburgh Museum, a good many years ago. Alas, the Miner is common no longer in this particular district. As described in the present notes on the Bank-Swallow (*Atticora cyanoleuca*), the extermination of the Biscacho (*Lagostomus trichodactylus*) on these level and bankless plains has deprived both species of birds (one of ground and the other of aerial habits) of any possible nesting-sites. It is only necessary to refer to my former paper to réalize how greatly the Miner is missed in the campo, where every larger Biseacho-colony, of the many thousands, had its pair of these birds (as well as the Burrowing Owls), and their familiar and lively presence constituted a source of interest and pleasure to the wayfarer.

In consequence, for many years past I have been in the habit of chronicling the presence of two or three pairs at certain favoured localities on sandy roadways, where the action of wheeled traffic and the winds combined had left little cliffs two or three feet high, and the surrounding terrain was bare or close-cropped; for it must be noted that the Miner passes all its time on the ground and does not affect concealment. Even those now alluded to were not in evidence during a brief visit I paid to the Yngleses in the spring of 1915, nor in the previous summer of 1914. Further, in the last-named year I observed none on the long sandy coast-route to the Montes Grandes in the south, nor on the equally long journey to Dolores in the west. On the other hand, a few pairs would seem to have found a refuge on some of the large canals constructed of late years for the drainage of this part of the Province. As the banks are, however, generally shelving, there are few sites which afford the necessary security for nesting-burrows. Mr. Hudson has fallen into what is probably a clerical error, when he indicates "the side of the deep pit-like entrance to one of those burrows (i. e. of the Biscacho) for the bird to bore its cylindrical hole." It is invariably the front or brow which is selected, a position admirably adapted to provide security against intruders or molestation from further excavating action on part of the Biscacho. My excuse for the extension of these remarks must be the possible total disappearance of the once Common Miner from this district.

The nesting-notes have been detailed at length by Hudson and myself. I may add that, in former years, I have seen a freshly-excavated burrow in a sand-bank on 1 June

(practically early in winter) and another on 25 July (midwinter). The usual clutch of three—according to Hudson, five—eggs are pure white in colour, and the measurements average 24×18 mm.

178. Furnarius rufus (Gm.). Red Oven-bird*.

Hudson supplements my former notes by a still fuller life-history of the Oven-bird, written after his usual graphic and interesting manner. There remains, therefore, but little for me to add at the present date. It is needless to say that the great four-years' drought of 1908-11 was particularly disastrous to this species ; the iron-bound soil was nonproductive of the usual food-supply of larvæ and insects, and water was only to be found at the troughs of the cattlewells, in the immediate neighbourhood of which were constructed the only possible nests. It cannot be said the number of individuals showed any marked diminution, but all building-operations were necessarily suspended. Subsequently, I was struck with the prompt resumption of work on the return of normal conditions. This observation is applicable to every more than usually dry summer, followed by the March rains. The first shower has probably not ceased falling, when the birds may be seen busily employed making and carrying mud-pellets ; their activities being accompanied by a most vociferous chorus of satisfaction and mutual congratulation. With the occurrence of the equally great three-years' flood of 1913-15, the situation underwent an extraordinary reversal. The flood began in the winter-time, and by 3 October I find myself struck by the wonderful number of birds and of completed nests. These latter were situated everywhere-in trees in woods and gardens, on gates and posts of fences, buildings, etc. One on the window-sill of my dressing-room (constructed before I went into residence) was an endless pleasure to me.

* The Sociedad Ornitológica del Plata, founded in Buenos Ayres on 28 July, 1916, has adopted the vernacular name of this species as the title for its Review. And the cover of 'El Hornero' is accordingly adorned with a vignette of these birds and their interesting nest.

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during the period of incubation and until the young ones were reared and left. Since 1879, when I recorded two nests built on the ground, I have met with only one similar instance; and this, again, was situated within a hundred yards of a Tala wood.

Mr. Hudson places the clutch at five, but I have never found the number to exceed four. The pure white pearshaped eggs average 28×22 mm., with great variation.

180. Upucerthia dumetoria (Geoffr. ct d'Orb.). Patagonian Earth-creeper.

I have but one recorded occurrence of this Patagonian species—a male bird shot in the woods of the Yngleses head-station, in July 1899.

183. Cinclodes fuscus (Vieill.). Brown Cinclodes.

Of uninteresting habits and appearance, and uncommunicative manners, the Brown Cinclodes is a winter migrant from the south, arriving in this district about 20 March and taking its departure towards the end of October. By the end of April it is abundant, generally singly, but sometimes in pairs, and I have seen one lot of four or five; otherwise it is strictly non-gregarious during its stay with us. A "restless, silent, unsociable bird" is the consensus of my notes; frequenting the ground where the grass is short, also sheep "rodeos" (muster-grounds) and muddy roadways, and often found in the woods. It perches occasionally on a low tree, a post, or a "durasnillo." It is not at all shy, and I have approached, or been approached by it, within a distance of two or three vards. In gait-the short run and flirting of the wings-there is a certain resemblance to the Wheatear (*Enanthe ananthe*), though without that bird's attractive sprightliness. The little used voice is at best a mere chirp or twitter.

188. Phleocryptes melanops (Vieill.). Rush-loving Spinetail.

Perhaps there is no species of bird so reminiscent of our swamps to one acquainted with them as this species. To the

observer-whilst ensconced comfortably in a canoe, engaged pontooning out sheep in flood-time, or "egging" on horseback or laboriously thigh-deep on foot-there comes at frequent intervals the long cricket-note call, followed by the crackling taps and creaks, which herald and accompany the advent of the bright-eved little proprietor of each particular small domain. Creeping from stem to stem of the fluted dark green "junco," generally close to the surface of the water (and as often as not head downwards)-itself a harmonious study in blacks, browns, and greys,-it approaches within a few feet of the intruder, rapping out little quaint oaths and protests, and is only to be appeased by the withdrawal of the disturber of its solitudes. To it, on these occasions, sometimes comes the Manycoloured Tyrant (Cyanotis azaræ), as similarly described by Mr. Hudson ; but the latter little beauty always struck me as being more coquettishly disposed than resentful, and frivolously disinclined to take the Spine-tail's serious view of the situation

Mr. Hudson has anticipated me in the fuller description of its habits. In this locality the migration is not absolute. Some years I have observed it until the end of June (more by token, one flew in at the sitting-room window at night, on 4 June, 1893) in no inconsiderable numbers; though I admit July has always been a blank. By 15 August it is recorded again, and even a completed nest on the 24th of the same month; whilst by 20 September many nests are nearly finished. All of which points to a but partial, or at the best general, migration. On the other hand, when the great flood began in the winter of 1913, I observed absolutely none during all my travels, until one or two appeared early in October. It was singularly scarce all the spring and summer (except during the one month of January), and when I revisited our district at the end of August 1915, under similar inundated conditions, I do not think I saw a single individual between Buenos Ayres and the Yngleses, or on the latter itself.

It is only necessary to supplement Mr. Hudson's nesting-

notes by stating that I have never been able to corroborate his one and interesting instance of a nest which had a stopper, or hinged doorway, to the orifice. In this locality eggs are to be found from the beginning of October to the middle of December. Only once has the clutch reached four, three being the usual number; indeed, I have several cases where only two were being incubated. In colour these are as described by Hudson, "of a bright, beautiful blue, sometimes with a slight greenish tinge." They are somewhat pear-shaped, and measure 21×16 mm.

In the bird, the iris is dark brown; Claude Grant calls it hazel, and Hudson is silent on the subject. My notes describe the bill as black or very dark brown; Grant says brown, yellow at gape and base of lower mandible; Hudson, pale horn-colour. Further, I characterize the feet as being sometimes horn-brown, dark slate-grey, almost black, and black; Grant, ashy; and Hudson, pale horn-colour.

189. Leptasthenura ægithaloides (Kittl.). Tit - like Spine-tail.

This graceful little species has been previously described by myself and by Claude Grant from the Ajó district, and by Hudson in its more general range. Reference to my diary since 1879 leads me to modify my former appreciation as to its abundance locally. It is not exactly common, though coming under occasional observation ; singly, in pairs, and (in the months of May and June) as many as two or three pairs noted in one day—perhaps the absence of foliage in the winter time allows it to be more easily noticed. I have not unfrequently found it in such an unexpected situation as the weed-jungle on the outskirts of a dry swamp, some distance from any wood.

The nesting-habits have been sufficiently dealt with. Hudson puts the clutch as high as five or six; my own experience is three, only once four. The eggs are white in colour, slightly pointed, and average 19×14 mm.

Iris dark brown ("hazel," according to Grant). Bill dark brown or black ("blackish, pearly at base of lower mandible,"

Grant; "horn-colour," Hudson). Legs and feet greenish yellow or olive ("horn-colour," Hudson). I shot a specimen once, the feet of which had the appearance as of some yellow pollen or sulphur adhering to them.

201. Synallaxis sulphurifera Burm. Yellow-marked Spinetail.

Personally, I have no notes of my own upon this species. Hudson gives a brief notice, as does Claude Grant, who states it is fairly common in our district. Specimens which have been brought me were shot in the grass-coverts of dry swamps.

Hudson quotes Durnford in connection with the nestinghabits, and Grant's account is similar. Two eggs in my possession were taken on 21 November. They are rather round, pure white, and measure 19×15 mm.

203. Synallaxis hudsoni Scl. Hudson's Spine-tail.

It is more than natural that I should have little to add to Hudson's account of the Spine-tail which bears his name. And, to be frank, it is a species which, though quite common, does not lend itself to more cursory observation (see Hudson and also Claude Grant). Where these two past masters emphasize its skulking and timid habits, I may be pardoned for merely referring to their obiter dicta. As far back as 1883 I sent Mr. Salvin a couple of skins, collected three years previously "in dry durasnillo-beds"; and since then many specimens have passed through my hands. But I am reduced to stating that I know it when I see it (a compliment which it does not show much tendency to reciprocate), and that I have never yet succeeded in finding a nest.

The nesting-period, from some half-dozen authentic cases furnished me, seems to occur rather late in the season— 8 November to 27 December. Four is the largest clutch, three being apparently the general number. Hudson places it at five.

The eggs are sometimes pure white, in others there is a tendency to a creamy colour or pale buff. They are bluntly pointed, and average 22×17 mm.

204. Synallaxis maluroides d'Orb. Wren-like Spine-tail.

An abundant species in "rincones," where the immense esparto beds constitute a safe refuge from birds of prey; also generally distributed in the vicinity of swamps, wherever there is a dense growth of either dry grass or wet weeds; but entirely absent on the plains. During the great flood of 1913–15 it practically disappeared. It is of feeble flight, and only on evidence when disturbed by the rider, and it flies a few yards. On these occasions the horseman is sometimes accompanied by an attendant Harrier (*Circus cinereus*), but I never saw a capture achieved, in the course of many attempts. One day, in the course of a very high wind, the helplessness of these little birds was very obvious; no sooner did they rise out of the esparto than they were put down again, and one was actually driven against my knee or saddle.

I am inclined to agree with Mr. Hudson that it has a partial migration, as I have found it scarcer in the colder months.

Personally, I am ignorant of its breeding-habits. In vain, on innumerable occasions, in the spring and summer, have I pulled out and dropped my handkerchief when a bird rose at the horse's feet; the subsequent search amongst the esparto, for many yards round, has always been unsuccessful.

Hudson describes the nest as "a slight open structure of grass lined with a few feathers, and placed in a tuft of grass or weeds; the egg pure white in colour." Claude Grant's one and only clutch of three eggs had "a mere bedding of dry grass with a little wool and thistle-down, placed on the ground in a dry part of the swamp." The three eggs—taken on 2 January, 1909—are of a broad-oval shape, pure white, and slightly glossy. They average 17 × 14 mm.

206. Anumbius acuticaudatus (Less.). Firewood-gatherer. The "Leñatero" or Firewood-gatherer is exceedingly common, and its nests, new and old, are to be found everywhere except in the heart of a wood; where, as

Mr. Hudson explains, the birds would be handicapped in rising with their building-material of small but rather long sticks. But the trees bordering the woods, and particularly isolated clumps or individual stunted Tala trees (though only five or six feet high) have all from one to three or four nests, a fresh one being built each season or the old one repaired; and in view of the size of these, and the thin foliage of Tala celtis (or in other cases the poplar), they are particularly conspicuous. There are three species of birds whose nests do not require to be sought, for in number and prominence of feature they positively "throw" themselves at one; namely, the Firewood-gatherer, the Bienteveo Tyrant (Pitangus bolivianus), and the Red Ovenbird (Furnarius rufus). In material they are extraordinarily divergent, and might be typically described as "a pile of sticks," "a rag-bundle," and "a mud-pie."

Telegraph-posts are a favourite site for the Firewoodgatherer's nest, and on many stretches of the railway the traveller in the train wonders if there is actually a nest to every post, or if he is obsessed by the same one post and nest-a freak of the eye's retina. At one bran-new station on a southern railway-line, the company had planted an equally recent row of silver-poplars just outside the wooden railing which guarded the platform ; these were not more than six or seven feet high, and in the featherduster-top of one of these methodically-pruned saplings, I was amused to find a pair of "Leñateros" with a nearly completed nest, quite regardless of train-traffic and passenger concourse. In parenthesis again, I should like to state how railwaystations in the Pampa territory (and doubtless in other similar parts of the world) play an interesting and important part in the development and protection of bird-life. As plantations spring up, the necessary covert and nestingsites are provided; whilst the overflow from the accompanying wells and water-tanks supplies another necessary element of life. During the great four-years' drought of 1908-11, the latter feature was particularly noticeable.

The look-out ladder in the Yngleses patio has generally a

Leñatero's nest wedged into two of the cross-spars near the top, making further ascent difficult; I have also found a nest in an old bucket, which happened to be hung on a post. I have an impression that the nest of this species is haunted by an evil-looking fly, which I have never observed elsewhere — somewhat larger than a house-fly and yellowbanded.

The nest itself is fully described by Hudson. Those I have examined were chiefly situated in small Tala trees, at about six or eight feet from the ground, and were selected for that reason, as being easily bent down for the purpose. The spiral passage is both narrow and thorny, hence my usual procedure consisted in cutting through into the base, where the egg-chamber is to be found; by doing so with care, the damage is not irreparable, in case of there being no eggs or the alternative of nestlings.

In this locality, building begins as early as 15 August; what would seem to be repairs of old nests, not till the beginning of October. It must be borne in mind that the nest and its tree constitute the headquarters of the life-pairing birds. Frequenting the open bare campo, in a radius of a very few hundred yards, they make a straight bee-line for home on being disturbed, to the accompaniment of their rolling note "chic-chic-churrrr."

Eggs are laid from 3 October to early December, the first month embracing the general period, which, for the builder of a structure of this nature, seems undoubtedly early, if it is borne in mind that the Green Parrakeet (*Bolborhynchus monachus* Bodd.)—also a chamber-nest twig-builder—does not lay until the end of December. True, the latter does not line its abode, whereas the Wood-gatherer is most snug in its domestic arrangements.

Four eggs has been my general clutch, very rarely five. In colour pale creamy white, and averaging 24×17 mm.

210. Phacellodomus striaticollis (d'Orb. et Lafr.). Redwinged Thorn-bird.

Hudson's mention of this species is only characterized by

his non-acquaintance with it. The present writer professes equal ignorance of its habits, pleading that all species of this form present much difficulty in identification and observation, owing to their strictly local habitat and secretive nature, and that accordingly (following his general procedure) he maintains silence when he has nothing to say.

Claude Grant, however, establishes its presence in this locality as being "fairly common, inhabiting rough grasslands and the cañadons ; it has a whistling call. The nest is usually placed in a low solitary tree or shrub, and is a longish structure of sticks placed almost horizontally, the entrance being at the higher end and with a tunnel communicating with the nesting-cavity; it is lined with wool and hair." The following is the consensus of various nests examined by myself :- Placed in a Brusquilla bush or isolated and stunted Tala tree (in the "rincon" district), from three to six feet from the ground. Built of thorny twigs of the two above-mentioned plants. About twenty inches long, and generally situated perpendicularly (not horizontally). From the entrance at the top, and at a slight angle, a narrow passage-lined with moss, wool, dry grass, and horsehair-leads down to a false nest ; at the opposing side of which, and as it were a step down, is the real breedingchamber (rather larger than the preceding). This last is domed, deep, and lined all round with fine rootlets and some wool, dry grass, and a few feathers. The nesting-bird sits close, and on being disturbed leaves silently and takes refuge in the surrounding esparto.

The eggs are laid at the end of October or early in November, and the clutch apparently consists of four. They are pure white in colour, rather pointed, and average 21×16 mm.

My own measurements of birds in the flesh are not in accordance with those of Hudson, and none are furnished by Claude Grant. On the other hand, I agree with the latter as to the colouring of the iris, bill, and feet, in both adults and young.

[To be continued.]